REMARKS

The specification has been amended with a view to overcoming the claim rejections under 35 USC § 112.

Reconsideration of the claims as being indefinite is respectfully requested.

The Examiner has further rejected claims 1 – 7 under 35 USC 102(b) as being anticipated by Karos (US 5 599 380), including in this rejection also US 4 973320 (Brenner et al.) and Meyst et al. (US 4 283 289).

US 5 599 380 (Koros) actually discloses polymeric gas separation membranes having a separating layer with a high entropic effect providing for enhanced gas separation properties. The polymeric gas separation membrane is manufactured from a first polymer which is dissolved in a solvent and forms a core solution and a second polymer which is dissolved in a solvent and forms a liner solution, wherein the core solution and the liner solution are extruded through a spinning a nozzle to form a hollow fiber membrane. Immediately after extrusion, the nascent multi-component hollow fiber membrane is drawn through an air gap and is solidified in a coagulation bath. In the coagulation bath the solvent is withdrawn from the multi-component hollow fiber membrane.

In column 3, lines 25 to column 4, line 2 a multitude of polymers are disclosed for forming the gas separation layer and also for forming the carrier layer without consideration however for blood or tissue compatibility. US 5 599 380 alone can therefore not possibly be detrimental to the novelty of the method as defined in claim 1.

US 4 283 289 (column 4, lines 28 – 30) discloses blood compatible polymers, for example, polyamide fibers such as nylon, vinyl polymer fibers such as polypropylene or polypropylene films. These polymer materials are given in US 5 599 380 partially for use as carrier layers as well as for the gas separation layer.

Concerning the tissue compatible polymers, the Examiner refers to US 4 973 320 where in column 3, lines 9 – 20 as polymer for tissue compatible medical apparatus for intracorporal insertion a polymethane elastomer is mentioned which includes a main chain with less than 50 wt% of organic silicone with a molecular weight of 500 to about 10,000. In the matrix, an oligodynamic agent is contained in a spatially uniform distribution, which agent re-

leases metal ions when the matrix comes into contact with body fluids. Also, polymethane is mentioned in US 5 599 380 as possible polymer for the gas separation layer of the gas separation membrane.

In contrast, the present invention resides in a method of manufacturing a membrane with a double-layer membrane wall whose layers consist of different polymers so that one surface of the double layer membrane is blood compatible whereas the other surface is tissue compatible. To this end, a first polymer comprising a blood compatible polymer and a second polymer comprising a tissue compatible material are dissolved separately in a respective solvent such that the polymer solutions remain in a homogeneous state and are then extruded together through a nozzle of an extruder into a coagulation bath so as to form the double layer membrane which subsequently is freed from non-membrane forming compounds.

The Examiner states that "although Koros (US 5 599 380) does not expressly state [that] the first and second polymers are blood compatible and tissue compatible, respectively, the references Meyst et al. (US 4 283 289) (column 4, lines 28-30) and Bruner et al (US 4 973 320) (column 3, lines 9 – 12) specifically teach that the first and second polymers used in Koros (US 5 599 380) are blood compatible and tissue compatible, respectively".

This however is not true: The references may disclose the existence of blood compatible fiber which may be utilized as a substitute for polyester fibers but they certainly do not disclose, or in any way suggest, a method of manufacturing a membrane which on one side has a surface formed by a blood compatible polymer and on the other side a surface formed by a tissue compatible polymer.

Nowhere is such a concept disclosed in, nor in any way suggested by, the references cited by the Examiner. Only after reading the present application is the Examiner – having made computer searches with the words "double layer membranes" and "blood" or "tissue compatible polymers", mentally empowered to declare that the method according to the invention is anticipated by the cited references. But those references show nothing more than that double layer membranes are known and that blood – and tissue – compatible materials are known, which – in no way – permits the conclusion that a method of making a membrane which has on one side a blood compatible surface and, on the other side, a tissue compatible surface is known.

Such a suggestion is even more fallacious as US 5 599 380 relates to gas separation membranes which certainly is not considered in context, or has anything to do, with blood or tissue contacts.

It is believed that, in trying to show the present invention to be anticipated by the cited references the Examiner really goes beyond reasonable limits; it can hardly be said credibly that the existence of a method making gas separation multi-membranes comprising a substrate layer and a gas separating membrane layer disposed on the substrate layer and the existence of blood and tissue compatible polymers will somehow lead a person skilled in the art to make membranes with blood compatible surfaces on one side and tissue compatible surfaces on the other.

Consequently, the method according to the invention is not only novel, but it must clearly also be considered to be unobvious from the state of the art and reconsideration of the rejection of claim 1 is respectfully requested.

Claims 2 to 10 relate to features considered to be advantageous in connection with the method as defined in claim 1. These claims are all dependent directly or indirectly on claim 1 and, consequently, include all the features of claim 1 so that they should be patentable already for that reason.

Reconsideration of the dependent claims 2 – 10 is respectfully requested and allowance of claims 1 to 10 is solicited.

Respectfully submitted,

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